October 2004

Safety Smarts

Environmental, Health and Safety Section

Visit our intranet site at http://www1.tempe.gov/hpcc

Respirator Protection Program

The City of Tempe is required by OSHA to develop a written program that addresses how workers will use respirator protection equipment. Like the Confined Space Program, this program must be reviewed annually and updated whenever changes to the law or internal operations occur.

Scott Mosley the City of Tempe, Industrial Hygienist and Program Administrator said "This plan is extremely important since Tempe has over 500 employees that wear respiratory protection on a regular basis."

Revisions to the plan were based primarily on the revocation of 29 CFR 1910.139, Respiratory Protection for Tuberculosis (TB). This standard applied to all Public Safety and medical workers who use disposable masks (single or double strap) for protection from exposure to TB. With the standard vacated these groups are now required to comply with the General Industry Respiratory Protection Standard, 29 CFR 1910.134. "This has significant ramifications for our Public Safety employees," Mosley said. Employees must be fit test annually in their tight fitting face piece and now if they use a disposable mask for TB protection they must be fit tested in it also.

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First Responder - Awareness Level

Whether you work with hazardous chemicals or drive a vehicle throughout the City as part of your job you face the very real possibility of being the first to discover a hazardous materials leak or spill.

OSHA mandates specific training for workers who are likely to witness or discover a hazardous substance release to undergo awareness training. First Responder training requirements are identified in 29 CFR 1910.120(q)(6)(i).

First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. These responders will take no further action beyond notifying the authorities of the release.

For many years individual employers have focused on this standard and sent employees off to a 40-Hour Hazwoper training class. While this class is informative it typically is not required for most employees operating at an awareness level. The 40-Hour class is an "operational" class for employees who will be expected to respond in a defensive fashion in an attempt to contain the release from a safe distance, keep it from spreading, and prevent exposure to employees and the public.

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Inside

This is a Quarterly informational publication for City of Tempe employees. If you have comments or suggestions please contact the Environmental, Health and Safety Section.

Material Safety Data Sheets – MSDS (From OSHA Compliance Advisor)

How Can You Ensure Greater Accuracy?

There's a lot of talk in safety circles theses days about material data safety sheets (MSDSs). In part that's because of an OSHA initiative to improve their clarity and readability. The agency is developing three guidance documents to improve chemical hazard communication in the work place. These are: a document for hazard determination; instructions in the preparation of MSDSs, and a model training program for hazard communication. The regulated community is eagerly anticipating these changes; OSHA is currently reviewing public comment on draft documents. You can read more about the initiative on the OSHA website at http://www.osha.gov.

Meanwhile, what can you do to ensure that the sheets *you're* using are as accurate as possible?

Make It Your Business

Other points and pointers:

- Consider using *electronic methods* to receive, store, and retrieve sheets. This can help ensure that MSDSs get to the right employees in a timely way.

Many employers are choosing to format MSDSs in Adobe Acrobat (PDF) digital files to ensure maximum readability when they are printed.

- Review sheets in your inventory and remove *unnecessary technical jargon* that makes them difficult for users of all education levels o understand. Ok, ask that the chemical manufacture or specialty safety consultant do this for you.
- Consider the needs of *employees who do not read or understand English.* Although OSHA only requires that the sheets be in English, the law also says employers must ensure that workers know how to obtain and use information on MSDSs and chemical labels. One solution is to engage a bilingual employee to provide relevant MSDS data, or have your inventory of sheets translated. But be sure to choose a translator or service that specializes in technical safety information.
- Audit sheets in use to be sure they *comply with OSHA hazard communication requirements.*

Required information includes:

- Material Identification
- Hazardous Ingredients identity information
- Physical/chemical characteristics
- Fire and explosion hazard data
- Reactivity data
- Health hazard data
- Precautions for safe handling and use
- Control measures

It is important to remember that in an organization like the City of Tempe with numerous departments, a consistent system must be in place and used by the entire work force. This ensures not only compliance with the standard but assures the safest possible work environment for our employees.

If you have questions on the City of Tempe, Hazard Communication Program contacts Scott Mosley 350-8877.

Respiratory Protection (continued from Page 1)

While this does not sound difficult, it has a significant impact on our Public Safety groups. “Fit testing these groups requires taking Police Officers and Fire Fighters of the streets for an hour just for fit testing, Mosley said.” Efforts by both Public Safety groups are impressive.

Significant changes were made to the training requirements for employees who use supplied air respirators. A supplied air respirator is one in which the user brings the air supply with them. Self Contained Breathing Apparatus and Air Lines are two examples. In the revised plan if an employee is expected to wear this type of equipment, they must train with it monthly. Additional requirements for employees involved in hazardous material operations and confined space operations where supplied air respirators are used are now included in the plan.

“These changes were to ensure compliance with the standard,” Mosley said. OSHA expects employees who use this equipment to be able to demonstrate proficiency in the proper use of the equipment.

OSHA is continuing to place a strong emphasis on engineering controls to reduce or eliminate respiratory hazards. “The use of respiratory protection equipment is a last resort,” Mosley said.

Something new that the EH&S Section will be using to determine if respiratory equipment is required is a Decision Logic Form. This form will be completed by the respirator user to identify the specific hazards that they will encounter. “Not all users will be required to complete the form,” Mosley said. The Police and Fire Department sworn members are exempt based on training and written procedures for emergency situations. Other employees like those working with asbestos will not be using the form because the use of respirators is required by other OSHA standards that regulate asbestos.

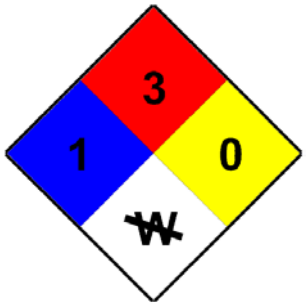
“This standard has annual requirements that must be completed for each user,” Mosley said. Fit testing and training are required every year, no exceptions. In addition, respiratory users must be medically cleared before they are fit tested initially. If the user will respond to hazardous material releases or clean-up activities they are required to receive annual hazmat physicals. Other users must complete the OSHA Respiratory Medical Questionnaire every two years. The questionnaire is than reviewed by a licensed medical provider to determine if additional medical testing may be required. It is estimated to cost $360.00 a year for employees to be in the program, provided they only have to complete the medical questionnaire. The cost does not include equipment, parts or service. The monetary cost can dramatically increase if the employee requires additional medical testing for clearance.

It is important to remember why you are being asked to wear respiratory protection equipment. Failure to use it correctly or properly maintain it can result in serious injury or death.

If you need assistance and want to determine if you may be required to use respiratory protection equipment, contact the EH&S Section. More information is available on our web site at:

http://www1.tempe.gov/hpcc

Responding to Chemical Spills



When you think of a chemical spill you probably think of an industrial setting or an overturned tanker oozing out methyl ethyl death. While chemical spills of this nature garner media attention, a small chemical spill that is improperly handled has the potential to cause the same injury, just not as wide spread.

If chemicals are used in your work place there is always the potential for a spill. If you are not prepared for this eventuality you could be placing yourself and other at risk. Chemicals when stored correctly, used correctly and are kept in their containers pose little if no risk to you, the work place or the environment.

"When it becomes a problem is when a chemical is used incorrectly or is stored for long periods of time," Raymond Hagen, Hazardous Materials Specialist stated. The information that is needed to ensure proper storage, use and what to do if a spill occurs can always be found in the Material Safety Data Sheet (MSDS).

The wrong time to read an MSDS is when a spill has occurred.

If an incompatible material is used to clean up the spill a reaction can occur and cause even worse problems than the original spill. Most people do not consider small containers of hazardous chemicals a serious threat. "In the past six-months we have been called out to various departments by employees who where experiencing symptoms of chemical exposure," Hagen said. "In every case it was tracked back to a spill, improper mixing or simply not complying with the MSDS and providing proper ventilation."

Employees must know what to do if a spill occurs and what measures to take to protect themselves. It is a sad fact that most employees never read an MSDS or take it seriously, especially when the chemical is in a gallon or smaller size container.

Small chemical spills that do not endanger workers in the immediate area may be cleaned up by employees who have been trained and are properly equipped to clean up the spilled material safely. That means spill kits must be readily available and written procedures in place.

If spill kits are provided then employees need to be appropriately trained. "Some chemicals used in the City have special precautions that must be followed because the pose an inhalation hazard," Hagen said. The danger in a spill of a chemical like aqueous ammonia is the pungent odor can get into the ventilation system and cause serious health problems for other who may not be in the same room or area of the spill.

The solution to protecting yourself and others is preparation. Read the MSDS's and obtain the correct spill clean-up materials and personal protective equipment before using the chemical. Include spill containment for all chemicals especially corrosives, oxidizers and flammable materials.

The EH&S Section will assist in the selection of the appropriate spill clean-up materials, personal protective equipment or spill containment. "If we are aware of the chemical you are using, we will even come out and clean it up," Hagen said. The important thing to remember is if the spill becomes too big and threatens employees, the public or the environment, call 911.

First Responder (Continued from Page 1)

First Responders operating at the awareness level need to be able to explain the nature of hazardous materials understand how these types of materials can cause harm to employees and the environment when not properly contained.

One of the primary duties of a First Responders is the basic ability to recognize the presence of a hazardous material and to “size up” the situation. Sizing up a situation is the ability to determine what the specific product is and the associated risks hazards.

Responders at the awareness level must show basic competencies when presented with placards, container labeling, NFPA 704 Fire Diamond and the Department of Transportation, Emergency Response Guidebook.

Employees are warned to use caution at all times and to make no attempt to approach the hazardous material.

As with any OSHA regulation there are some very important regulatory requirements that must be met, even at an un-expected or unscheduled release. OSHA requires an emergency response plan be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations.

The plan must be in writing and available for inspection and copying by employees, their representatives and OSHA personnel. It is very important to remember that employees acting as first responders have a thorough understanding of the workplace emergency response plan.

Basically if you are operating at the awareness level, you are expected to recognize the presence of hazardous materials, protect themselves appropriately, call for help, and secure the area. They should never attempt to contain or mitigate a release.

The standard has specific provisions for employees who may be called upon to assist by operating equipment or performing other tasks as part of an emergency response to a hazardous materials release. For example, if an employee is called to an incident and is expected to operate a piece of equipment, they can, provided they are made aware of the Health and Safety Plan, are supplied with appropriate personal protective equipment and are working under an incident command system.

The EH&S Section can assist in determining the level of training you may need and in some cases provide the training for you. If you need assistance please contact the EH&S Section.

Unreported Spill Leads to Arrest (Costal Training)

A former biology teacher was arrested at her home about six weeks after she allegedly spilled a small amount if highly toxic mercury in a school lab and tried to clean it up without alerting school officials, according to the *Louisville Courier-Journal.*

The 34-year old teacher was charged with first-degree criminal mischief, a felony, for allegedly causing more than $64,000 worth of damage to the lab and for waiting until a day after the Oct. 28 spill to notify school officials. When mercury is spilled in a classroom, students are supposed to be evacuated and room sealed off, school and health officials told the newspaper. School officials and police said no students came into contact with the mercury. According to the EPA, the amount of mercury spilled was enough to cover only the bottom of a glass, but vapors in the chemistry classroom exceeded recommended levels of exposure.

Illegally Disposed of "Stuff"

Many times in the course of your work day you discover items that have been illegally disposed of in parks, bus stops, alley ways, trash containers, public right of way or in areas that just seem out of place.

When you encounter this you should contact the EH&S Section so the items can be examined and the contents determined. It is important to remember that if you discover an item in a public area or building, immediately contact the Tempe Police Department and Fire Department (911).

According to David Tavares, Hazardous Materials Supervisor, "When we receive a call involving illegally disposed substances, we use a vast array of monitoring equipment to ensure it is safe to approach."

There have been occasions when employees have transported what they thought was motor oil or simple green to the Center and it has turned out to be a corrosive, oxidizing material and in one instance a chlorinated solvent. "We have even had clandestine drug lab waste transported to the Center by employees," Tavares said.

Looks can be deceiving; carrying an item in a bucket or in the back of a vehicle can result in a spill. "We use special containers that are specifically designed for transporting items," Tavares said.

In light of world events, employees should be aware of any discarded items and approach cautiously. "If you are not sure about it, call us or dial 911," Tavares said. Remember never touch, open or move an item unless you are ***sure*** of what it is. Here is a partial list of items you should contact EH&S to assist with transport and disposal:

- Flammable Materials
- Corrosives
- Solvents
- Automotive Fluids
- Pesticides
- Fertilizers
- Pool Chemicals
- Red Bag Trash

For more information or to contact EH&S for assistance telephone 350-2818, 350-2819 or page 602-201-1857.

If the situation poses a threat to you or the public, contact the Tempe Police or Fire Department 911.

Household Products Collection Center

The Household Products Collection Center (HPCC) is the first permanent recycling center in the Valley. The Center is open to residents of Tempe and Guadalupe only.

The HPCC accepts household hazardous waste every Friday and Saturday. It is important to remember that the Center does not accept hazardous waste generated by business, including City operations. One of the resident's favorite aspects of the Center is the "swap area" and free paint program. Residents can take new or slightly used items for free. This year alone 14,310 pounds of latex paint has been given back to Tempe residents.

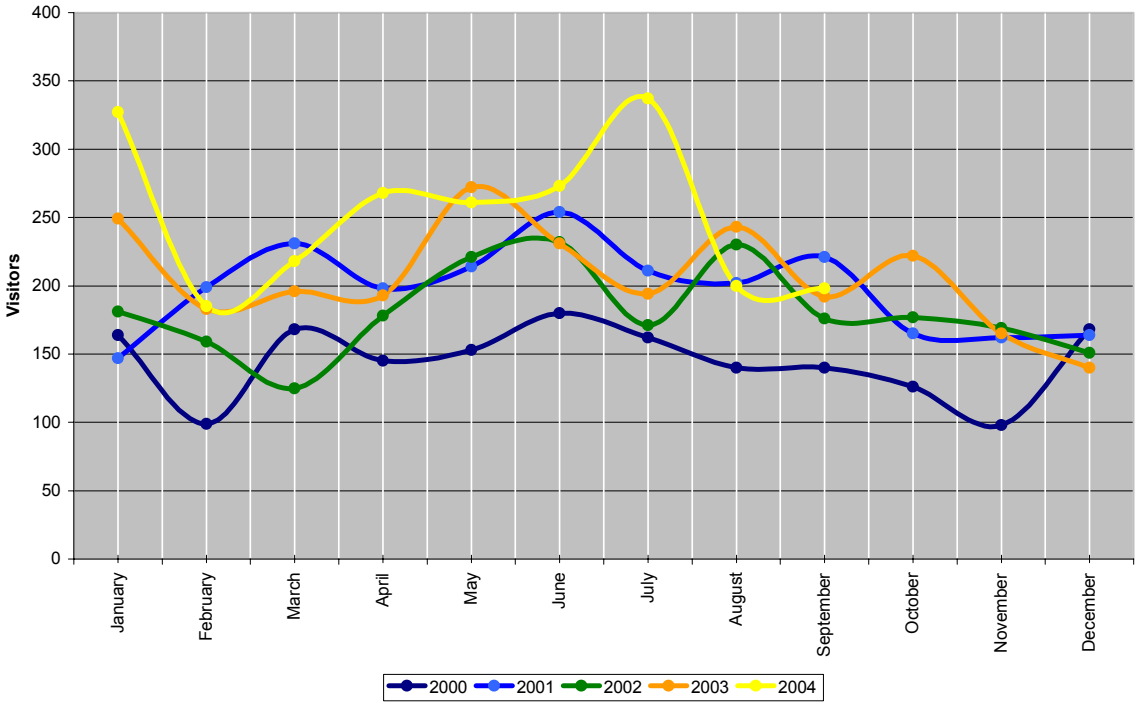
An 89% recycling rate has been achieved consistently this year. None of the hazardous waste taken from the center is placed in landfills. For a list of items accepted at the Center visit our web site or call 858-2223.

2004 Numbers (In Pounds)

These numbers represent materials removed from the waste stream, kept from the landfill and contaminating our water:

- 26,069 Flammable Liquid
- 12,017 Batteries
- 3,763 Pesticides
- 3,335 Corrosives
- 766 Oxidizers
- 266 Mercury Debris
- 169 Prescription Medicine
- 41 Fire Works
- 26 Calcium Carbide
- 22 Isocyanates

Visitor Trends



http://www.tempe.gov/hpcc

OSHA Fines…

Worker Drowns in Confined Space

Vail Resorts, Inc. (Keystone, Colorado) was fined $128,250 after a worker drowned in the below ground vault of a snow making pit.

The company was cited for willful violations for failures to:

- Post the required warning signs on confined spaces develop and implement a written confined space program and provide confined space training.
- Inform an outside rescue service of the hazards and provide the service access to the spaces so that it could plan and practice appropriate rescue procedures.

Acid Tank Explosion

Motiva Enterprises, LLC (Delaware City, DE) was fined $259,000 after one worker died and six were injured in an acid-tank explosion.

The tank, which was used to store sulphuric acid, exploded when it was ignited by a spark from a welding machine.

The company was cited for failing to inspect, repair and provide covers for tanks at its facility.

Investigators charged that inspections were not made in a timely manner, despite the company's knowledge that the tanks had a history of leaks and that some of them showed signs of deterioration.

Need to get in touch with us…

The ***Environmental, Health and Safety Section*** are here to assist you in all your safety and hazardous materials needs.

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